Mississippi National River and Recreation Area

Fossils: Make Your Own Fossil

Grade levels: 4-6. Require time: 30 minutes.

Objective:
The student will create an imitation fossil that employs at least two elements of the definition of what a fossil is.

Materials:
1. Moist workable clay (any natural clay of type used by potters)
2. Miscellaneous small bits of plant and animal material (e.g., leaves, stems, seeds)
3. Feathers, pieces of snails or shells, etc. (These may be collected by students in advance.)
4. Sample fossil from a local Mississippi River bluff (very helpful, but not essential)
5. Wash basin and towels (for washing hands after creating "fossil")

Introduction:

Ask students for ideas of how to find out about the origins of the Mississippi River before people were here. Explain that rocks and fossils tell a story of such earth's history. Show sample fossil from rock found along the Mississippi River. Ask a student to describe what she sees in the sample. Define a fossil as any trace or remnant of a life form (plant or animal) from a past geological age, embedded in rock. Explain that a fossil can be 1) a piece of the original plant or animal itself, or 2) an imprint of the plant or animal (e.g., a leaf print or footprint in solidified mud), or 3) a mineralized replacement of the animal or plant that takes its form.

Procedure:
1) Each student should get a lump of moist clay about the size of the palm of their hand. Work clay into flat rock form.
2) Whether previously collected by students or supplied by teacher, students should have a few very small pieces of plant (and optionally, clean animal remnants such as snail, shell or feather) to work into clay.

3) Each student must choose two of the following possible fossil types to show in their clay rock. Choices must be clearly evident in final product.

- embedded plant material
- imprint of plant (e.g. leaf print or stem print)
- embedded animal remnant (e.g. snail or shell bit)
- imprint of animal remnant or evidence (e.g. feather print, or human hand print)

4) Set aside to dry. The clay will harden into a hard fossil.

Evaluation:
Identify two types of fossils in final product.

Background for teacher: Fossils of sea life found in sedimentary rock strata along the Mississippi River tell us that tropical seas were present over Minnesota during the Ordovician period, from 500-435 million years ago.